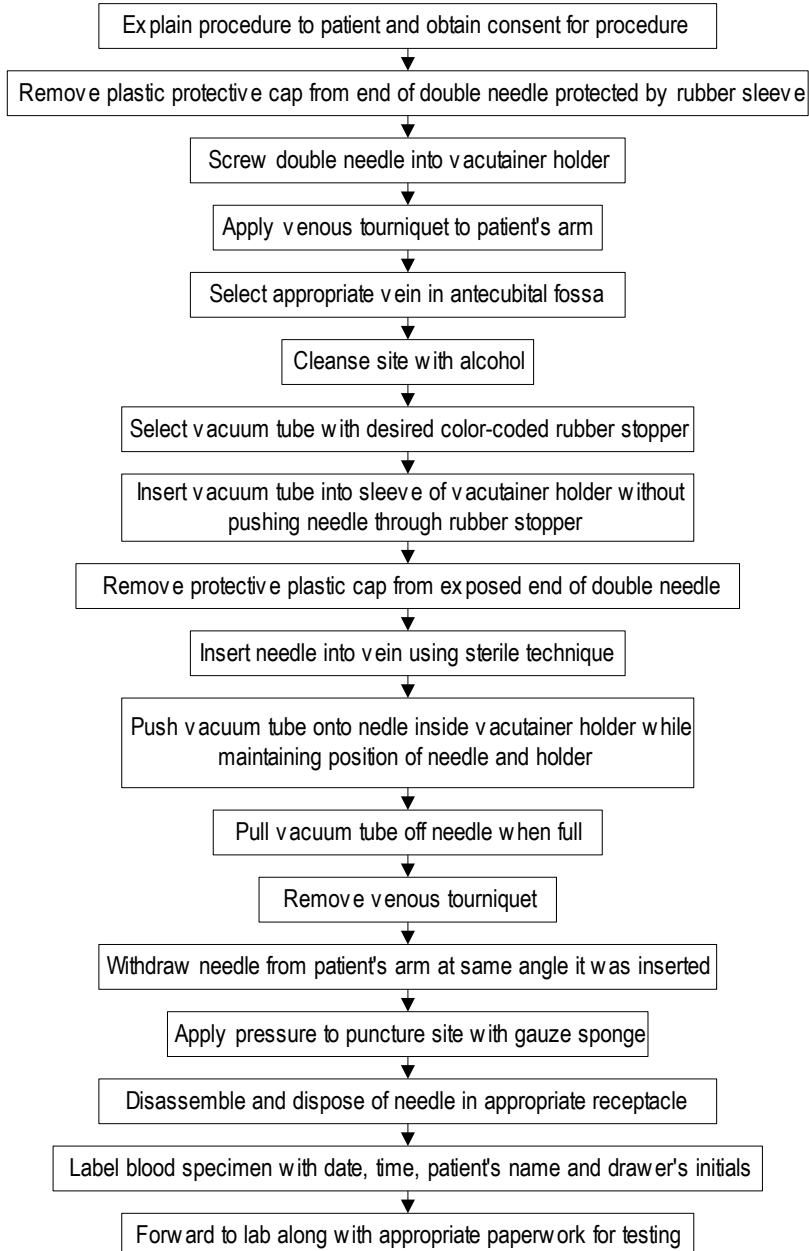


Initial: 9/92
Reviewed/revised: 5/10/00
Revision: 2

**MILWAUKEE COUNTY EMS
PRACTICAL SKILL
BLOOD DRAW FOR
ANALYSIS**

Approved by: Ronald Pirrallo, MD, MHSA
Signature:
Page 1 of 1

Purpose:		Indications:	
To obtain a sample of blood for laboratory analysis		Significant exposure to a member of the emergency medical response team	
Advantages:	Disadvantages:	Complications:	Contraindications:
Secures the blood sample while the patient is available	Exposure to blood during the procedure	Hematoma Infection	Competent patient refuses Procedure Bleeding disorders



NOTES:

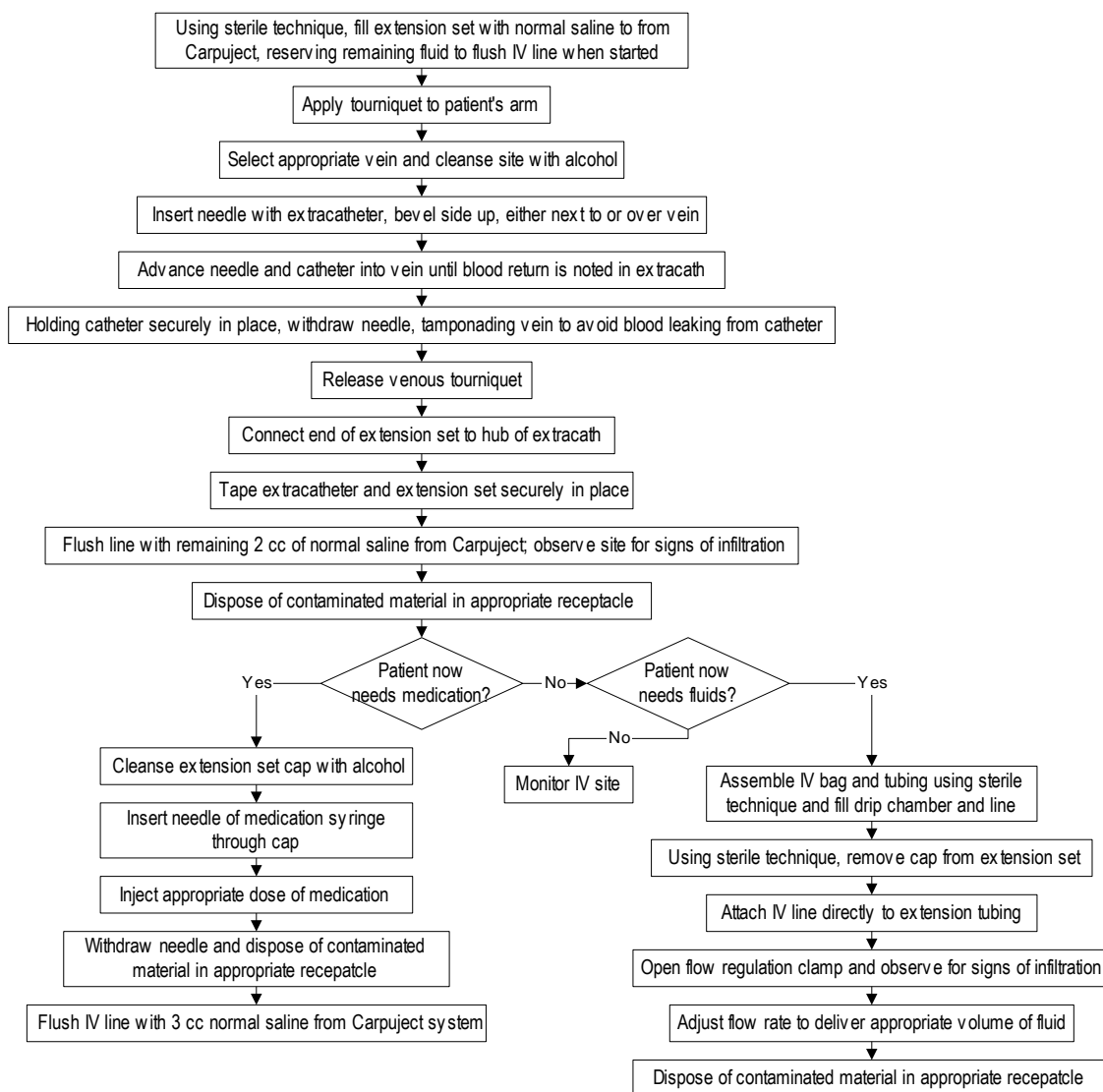
- Some vacutainer needles have an adapter in place of the needle. The adapter attaches to an IV catheter already in place in the vein.

Initial: 5/23/96
Reviewed/revised: 5/10/00
Revision: 1

**MILWAUKEE COUNTY EMS
PRACTICAL SKILL
CAPPED IV LINES**

Approved by: Ronald Pirrallo, MD, MHSA
Signature:
Page 1 of 1

Purpose: To provide for a precautionary intravenous access line in patients who do not currently need fluid replacement or intravenous medication administration		Indications: For a patient who should have IV access available for safety during transport but the patient does not currently need fluid or medication administration	
Advantages: Provides route for administration of fluid for volume replacement Provides route for administration of medication	Disadvantages: Causes pain during insertion	Complications: Infiltration Infection Small clots can form at the end of the catheter and embolize when the line is flushed	Contraindications: Infection in area of the insertion Need for fluid resuscitation



NOTES:

- The vein in the umbilical cord and the external jugular veins may not be used as the site for a capped IV.

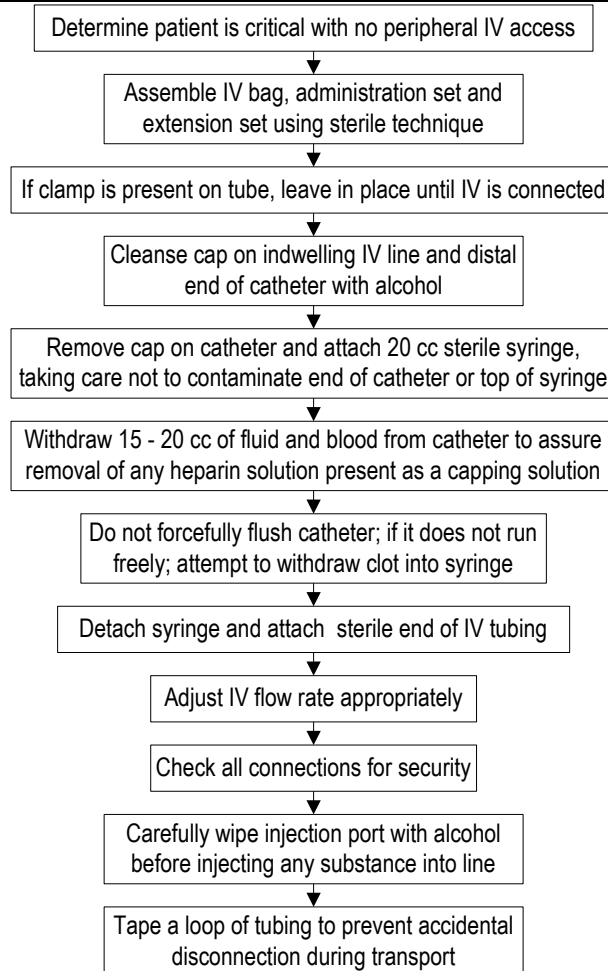
Initial: 9/21/95
Reviewed/revised: 6/1/05
Revision: 2

**MILWAUKEE COUNTY EMS
PRACTICAL SKILL
USE OF CENTRAL**

Approved by: Ronald Pirrallo, MD, MHSA
Signature:
Page 1 of 1

INDWELLING INTRAVENOUS LINES

Purpose:		Indications:	
To utilize an existing central line for administration of intravenous fluids and medications		May be used in immediate life threatening situations when another site cannot be accessed	
Advantages:	Disadvantages:	Complications:	Contraindications:
Readily available IV access into central circulation Route for administration of medication and fluids	None	Air embolus Clot formation at end of catheter Heparin overdose if not removed Irritation of heart end of catheter Infection/sepsis	Available peripheral IV site Inability to withdraw fluid from catheter Lack of external catheter site



NOTES:

- A dialysis shunt may ONLY be used when the patient is in cardiorespiratory arrest and no peripheral IV site is available. Consider enlisting the expertise of the dialysis nurse, if present.
- Carefully monitor the flow rate of the IV line, as most indwelling catheters have large lumen.
- Air emboli may be drawn in when the patient inhales while the catheter tip is open to the atmosphere.
- Patient may receive a heparin overdose if the solution is not removed prior to starting IV fluid.

Initial: 9/92
Reviewed/revised: 10/10/07
Revision: 3

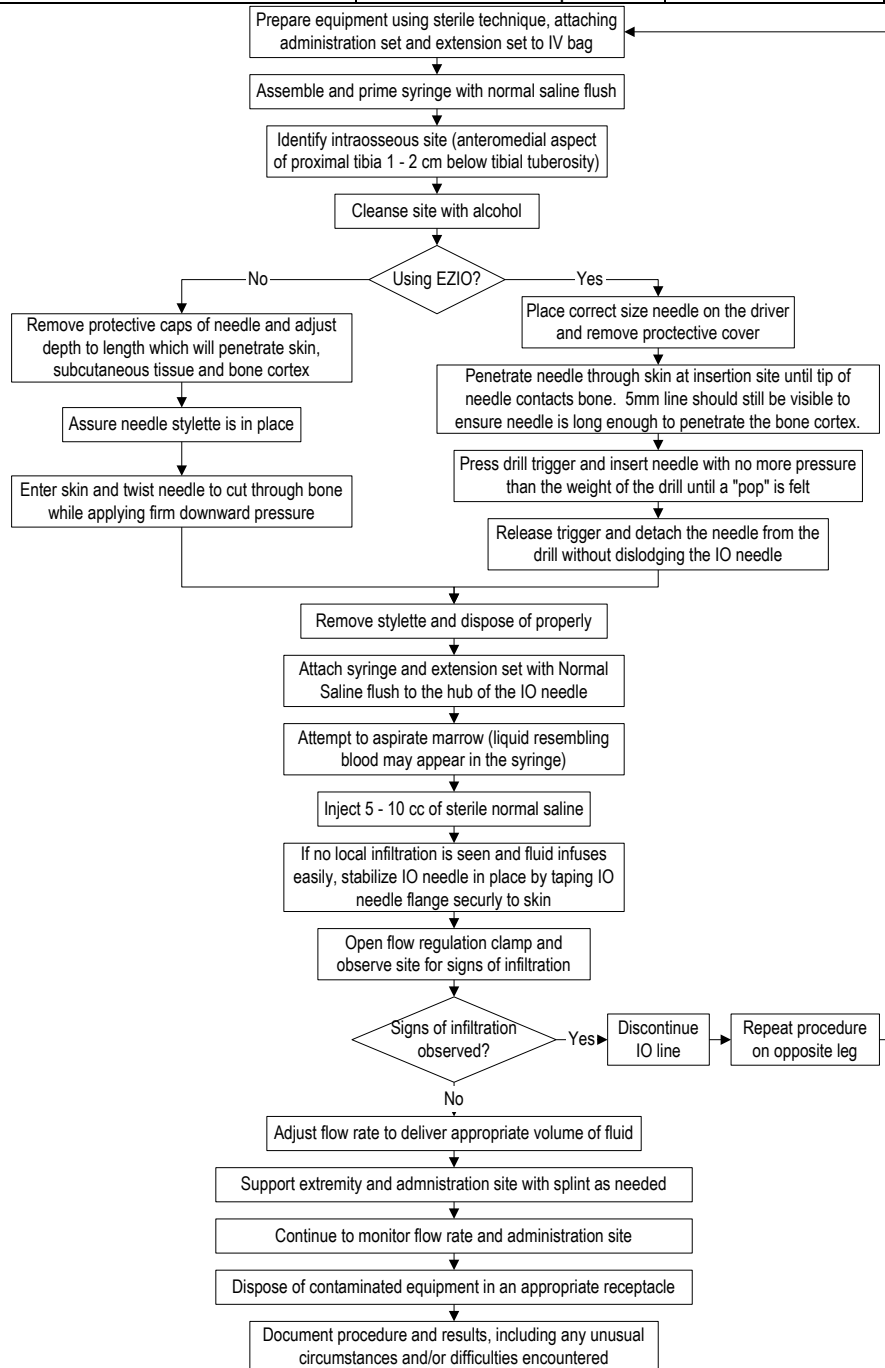
**MILWAUKEE COUNTY EMS
PRACTICAL SKILL
INTRAOSSEOUS INFUSION**

Approved by: Ronald Pirrallo, MD, MHSA

Signature:

Page 1 of 1

Purpose: To provide access to the bone marrow canal as an alternative to an intravenous line for administration of fluids and medication		Indications: An IO line may be established in the cardiopulmonary arrest victim in whom an IV line cannot be established	
Advantages: Provides route for fluid administration Provides route for medication administration	Disadvantages: Requires special equipment and insertion technique	Complications: Infiltration Infection Tibial fracture	Contraindications: Leg fracture Infection over site Delay in transport



NOTE:

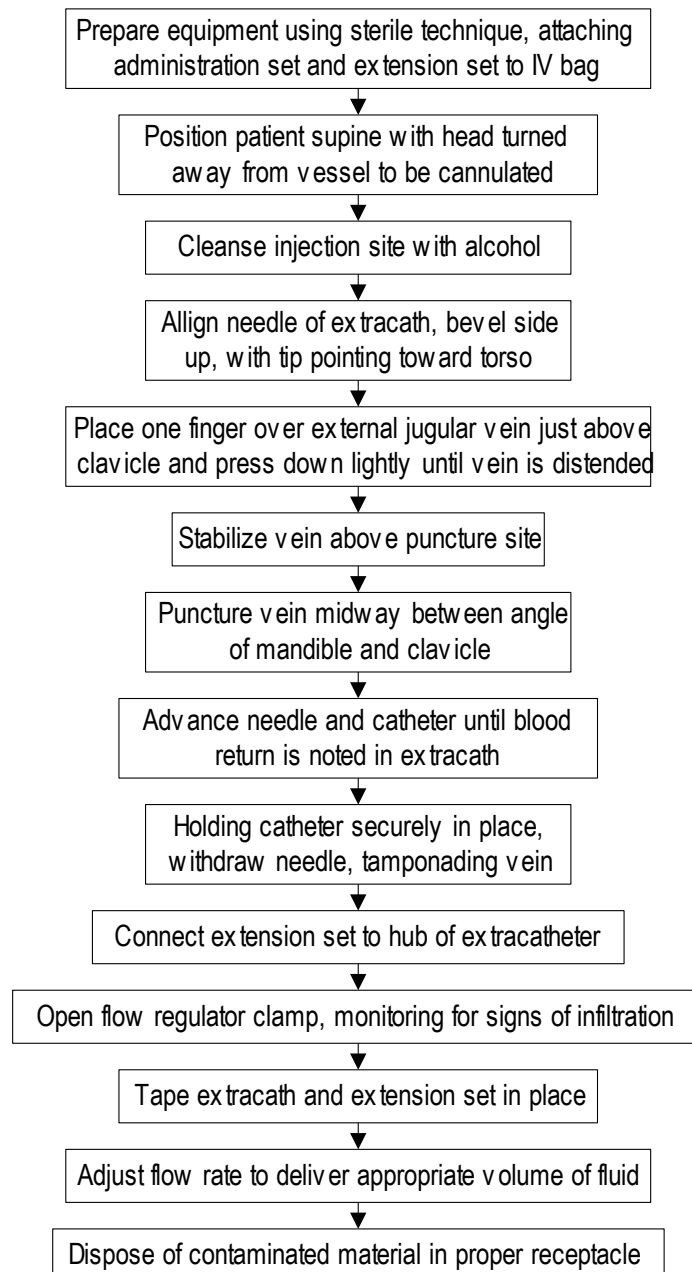
- Monitor carefully for infiltration. Extravasation of some medications can cause tissue sloughing.

Initial: 9/92
Reviewed/revised: 5/10/00
Revision: 2

**MILWAUKEE COUNTY EMS
PRACTICAL SKILL
JUGULAR VEIN ACCESS**

Approved by: Ronald Pirrallo, MD, MHSA
Signature:
Page 1 of 1

Purpose: To place an extracatheter into the external jugular vein for administration of fluids or medications when a peripheral site is not available		Indications: A critically ill patient who requires IV access with no accessible peripheral site	
Advantages: Route for fluid administration Route for medication administration	Disadvantages: Causes pain during insertion	Complications: Infiltration Infection	Contraindications: Obscured landmarks (trauma, subQ emphysema) Cervical collar in place Infection in area of insertion Delay in transport of critical patients

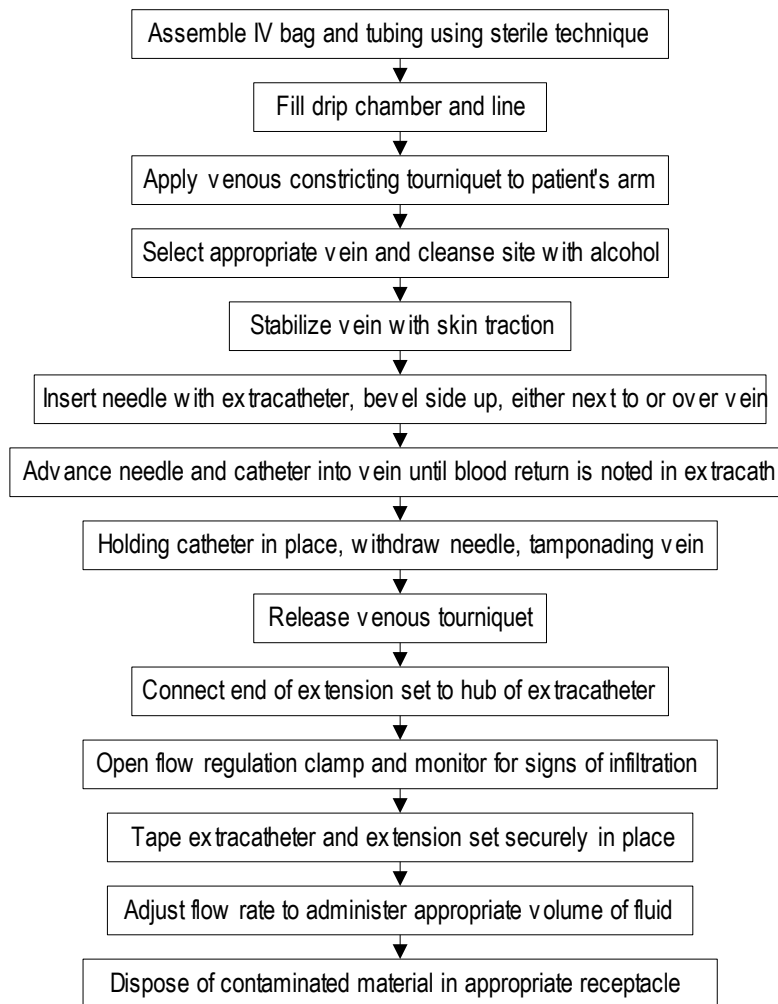


Initial: 9/92
Reviewed/revised: 5/10/00
Revision: 2

**MILWAUKEE COUNTY EMS
PRACTICAL SKILL
PERIPHERAL VENOUS ACCESS**

Approved by: Ronald Pirrallo, MD, MHSA
Signature:
Page 1 of 1

Purpose: To provide a route for administration of fluids and medications into the vascular system via a peripheral vein.		Indications: An IV may be established in patients who appear acutely ill.	
Advantages: Provides a route for fluid administration Provides a route for medication administration	Disadvantages: Causes pain during insertion	Complications: Infiltration Infection	Contraindications: Delay in transporting critical patients Infection at the site of insertion



NOTES:

- Monitor carefully for infiltration. Extravasation of some medications can cause tissue sloughing.
- Peripheral IVs may be difficult to establish in newborns. The vein in the umbilical cord may be used. There are two small-lumen arteries and one large-lumen vein in the umbilical cord. The insertion point of the extracatheter should be proximal to the cord clamp (between the cord clamp and the infant's abdominal wall).